Work Order ID 106189 *106189*

August-28-13 1:02:00 PM

Item ID: D2565-111 D2565-111 **Accept** *N900040100* **Setup** **Start** *NS1*

Revision ID: B106189 **Stop** *NS2*

Item Name: Strut

Start Date: 8/28/13 **Start Qty:** 5.00 *5* **Cust Item ID:**

Required Date: 8/28/13 **Req'd Qty:** 5.00 *5* **Customer:**

Reference:

Run **Start** *NR1*

Stop *NR2*

Approvals: **Process Plan:** MLJ **Date:** 13-08-30 **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
D2565	Rev E

SB 13/10/10

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100 *100* Brake NC	Punch ends and deburr as per dwg NC BRAKE	0.00				5			
Brake NC	**Memo** Punch as per Dwg D2565 using DT 8313	0.00							
110 *110* Small Fab	Small Fab	0.00				5			FF 13-10-23
Small Fab	**Memo** Deburr	0.00							
120 *120* QC	QC5- Inspect part completeness to step on W/O	0.00	DAS 27 9-89 13 10 23			5			
Quality Control	**Memo**	0.00							

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ______	DISPOSITION	AGAINST DEPARTMENT/PROCESS			
Part No. ______	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ______	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID 106189
August-28-13 1:02:00 PM

106189

Item ID:	D2565-111	**Accept**	*N900040100*
Revision ID:		**Setup Start**	*NS1*
Item Name:	Strut	**Stop**	*NS2*
Start Date:	8/28/13	**Start Qty:** 5.00	*5*
Required Date:	8/28/13	**Req'd Qty:** 5.00	*5*
Reference:		**Cust Item ID:**	
		Customer:	

Run Start *NR1* **Stop** *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______
QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Powdercoat Powder Coating	White Gloss(Ref.4.3.5.2) per QSI005 4.3-Steel M 106125 Memo START TIME: 2:10 OVEN TEMPERATURE: 400° FINISH TIME: 2:40	0.00 0.00				5	Ø	13-10-23.	DAS 34 9-89
140 *140* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00 DAS 27 9-89 13 1024				S			
150 *150* Packaging Packaging	Identify as per dwg & Stock Location:______ Memo 57202	0.00 0.00				5x		13/10/24	DAS 32 9-89

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ____________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ____________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
NCR No. ____________	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	**General**			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	____________	
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	____________	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	____________	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID 106189
August-28-13 1:02:00 PM

106189

Item ID: D2565-111
Revision ID:
Item Name: Strut
Start Date: 8/28/13 **Start Qty:** 5.00 *5*
Required Date: 8/28/13 **Req'd Qty:** 5.00 *5*
Reference:

Accept *N900040100*

Setup **Start** *NS1*
Stop *NS2*

Cust Item ID:
Customer:

Run **Start** *NR1*
Stop *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______
QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160*	QC21- Final Inspection - Work Order Release	0.00						M 13-10-25	
QC Quality Control	Memo	0.00							

M 13-10-024

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ____________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ____________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
NCR No. ____________	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	**General**			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
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☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	____________	
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	____________	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	____________	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Picklist Print

August-28-13 1:02:04 PM

Work Order ID: 106189 *106189*

Parent Item: D2565-111 *D2565-111*

Parent Item Name: Strut

Start Date: 8/28/13 **Required Date:** 8/28/13

Start Qty: 5.00 **Required Qty:** 5.00

Comments: IPP: E01.06.04Added Powder Coat, Removed Polish, and Added Inspection Levels 3 & 21 EC
IPP: E06.05.03 Change level 2/8 to QC5 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304TR0.750W.049		Purchased	No			100	f	513.5956	1.1375	5.986842			
M304TR0.750W.049									**		SB	13/10/10	
304 RD Tube .750 x .049W													

Location	Loc Qty	Loc Code	
MAT017	513.5955505		2.5
122312	13.3		
122468	0.0000325		
124768	56.63245		
125068	4.5664		5
M126183	299.120001		
M126349	139.976667		

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ____________________

Part No. ____________________

NCR No. ____________________

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	**General**			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
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☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
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☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
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☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

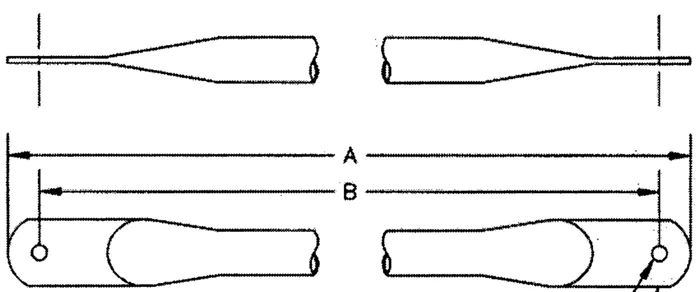
DART

QA COPY ISSUED

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2565 — REV. E — SHEET 1 OF 1
DATE 04.05.05		TITLE STRUT — SCALE 1:3

REV	DATE	DESCRIPTION
A	96.05.03	NEW ISSUE
B	97.03.15	CORRECT D2565-111 DIM. A
C	98.10.05	UPDATED MATERIAL NOTE (TSR A603)
D	02.06.05	ADD -3XX PARTS; ADD FINISH
E	04.05.05	ADD D2565-401-411; RMV ANGLE D

RELEASED 04.05.05



PART #	A	B	DIA C
D2565-101	20.52	19.72	0.316
D2565-103	18.21	17.41	0.316
D2565-105	20.19	19.39	0.316
D2565-107	13.43	12.63	-
D2565-109	12.31	11.51	-
D2565-111	13.65	12.85	-
D2565-201	22.79	22.00	0.316
D2565-203	20.75	19.95	0.316
D2565-205	21.22	20.42	0.316
D2565-207	16.07	15.27	-
D2565-209	15.16	14.36	-
D2565-211	14.14	13.34	-
D2565-301	27.03	26.23	0.316
D2565-303	25.34	24.54	0.316
D2565-305	23.73	22.93	0.316
D2565-307	20.86	20.06	-
D2565-309	20.17	19.37	-
D2565-311	16.30	15.50	-
D2565-401	18.29	17.49	0.316
D2565-403	15.64	14.84	0.316
D2565-405	19.45	18.65	0.316
D2565-407	10.79	9.99	-
D2565-409	9.34	8.54	-
D2565-411	13.81	13.01	-

GENERAL NOTES

1) MATERIAL: AISI 304/316/318 SS 0.750 OD X 0.049 WALL
   (REF DART SPEC. M304TR0.750W0.049)
   ENSURE SEAMLESS TUBE IS USED
2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
3) TOLERANCES PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES

106 189 MS
13-08-30

DART AEROSPACE LTD

Description:	Strut	Work Order:	106 189
Inspection Drawing: D2565	Rev: E	Part Number:	D2565-111

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
13.65	+/-.030	13.65	✓		T	SB-5
12.85	+/-.030	12.85	✓		T	SB-5
⌀ .257	+/-.005	.257	✓		V	SB-11

Measured by: SB	Checked By: FF	QC inspector:	Engineering Approval *(if necessary)*:
Date 13/10/20	Date 13-10-23 ~~10-13-23~~	Date	Date